Northeast HealthNet

APPLICATION
Pilot program to examine how the Rural Health Care funding mechanism can be used to enhance public and non-profit health care providers' access to advanced telecommunications and information services.

SUBMITTED TO:

Federal Communications Commission
Washington, DC 20554
Rural Health Care Support Mechanism
WC Docket No. 02-60

SUBMITTED BY:

Rural Health Telecom
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Executive Summary

Northeast HealthNet represents **39** healthcare providers in Pennsylvania and New York. This extensive alliance was formed for the purpose of responding to the FCC Pilot Program in an effort to gain access to telemedicine services through a new broadband regional network.

Our partner, Rural Health Telecom, a division of Koxlien Communications, Inc., exclusively supports rural healthcare providers with telecommunications network products and services. Since 1999, the company has focused on providing support to rural healthcare providers seeking to obtain Universal Services Funds. Past and present clients range from smaller rural clinics to community and regional medical carriers. RHT offers support for WAN services such as ATM, Frame Relay, Internet Access, Private Router Networks, Internet VPN and related services.

RHT works with telemedicine networks that include interactive video, PACS, Internet, voice and administrative data. Representing many telecommunications carriers that support rural healthcare under the Rural Health Care Support Mechanism, RHT designs WAN networks that offer a wide range of features and benefits. RHT also provides support in facilitating the healthcare provider through the USAC – Rural Health Care Support Mechanism.

REGIONAL TELEHEALTH NETWORK of NORTHWEST PENNSYLVANIA

Overview

The 17 counties that comprise northwest Pennsylvania (except Erie County) have been designated by **US Census** as rural and by **CMS** as *Healthcare Provider Shortage Areas* (HPSA). This region represents approximately 30 percent of Pennsylvania's land mass and its sparse population makes it impractical to provide efficient and cost effective delivery of healthcare and professional education.

Ironically, despite the ruggedness of the region and the lack of health services the only population sub-group showing an increase in numbers is over 55 years old. Nearly 50 percent of the state's Medicare population now resides in NW Pennsylvania but is served by less than 6 percent of the state's total physician population. Given the intensity of labor due to the rise of chronic disease such as Congestive Heart Failure (CHF), rural hospitals serving the region are ill-equipped, both financially and professionally, to meet this rising demand.

Tragically, the lack of professional education has been linked to misdiagnosis of CHF that leads to poor patient compliance, patient quality of life issues and wasting limited healthcare resources. Early intervention is a key component of any chronic disease management effort. Telehealth can help to establish a continual feedback loop between patients and clinicians.

Hence, the need to address rural healthcare insufficiencies has led to a demand for virtual healthcare. Using high-speed fiber optic networks and advanced digital telecommunications equipment, Telehealth delivery is more accessible and accurate today than at any time in recent history. Beyond technology, the three major drivers making Telehealth a necessary alternative are:

1. The need to manage, using advanced medical services, the growing number of patients living with chronic diseases in an efficient way;
2. The need to improve access to care and deal with shortages of clinicians; and,
3. The opportunity to increase patient compliance with treatment regimens and become active participants in managing their health.

Early adopters of remote Telehealth consultations have addressed all of these needs showing cost savings, a better use of resources and improved outcomes. Telehealth studies specifically in CHF have shown superior quality of life for patients and significant healthcare savings as compared to traditional services.

The Regional Telehealth Network (RTN) is a dependent organization consisting of rural hospital members from across NW Pennsylvania and with specific oversight from Saint Vincent Health System (SVHS), a not-for-profit tertiary healthcare provider. Utilizing a board of directors and management team from SVHS, RTN works within the direction of board members and its business plan to promote, build and sustain a regional Telehealth solution. Saint Vincent Health System is the region's largest and oldest healthcare provider.

An overview of the work plan includes identifying an initial set of pilot project participants, providing fiber optic connections, conducting in-services on purchased equipment, launching CHF with an identified Cardiology group and measuring the impact using satisfaction surveys from patients, families, presenters and physicians. As each site is evaluated, necessary improvements will be implemented. It is anticipated that new sites will be developed at a rate of one every two months until 12 locations are developed and evaluated.

Previous experiences with implementing a project like Telehealth include persons with over 30 years of healthcare, education and technology experience, specialists in cardiology and other advanced services and a network of persons already engaged in Telehealth activities from Pennsylvania and other US locations. Assistance from vendors providing equipment installations and in-services along with membership in key professional organizations complete the Telehealth team.

In summary, Pennsylvania is the perfect demographic and geographic model for measuring the impact virtual medicine can achieve by addressing chronic disease among those 55 and older. By obtaining necessary state-of-the-art digital

and communication equipment, NW Pennsylvania can take advantage of a regional fiber optic network heretofore available but underutilized.

The network will use an advanced, high-speed telecommunications network for real-time information sharing between:

- Rural healthcare partners and local medical specialists to provide remote diagnosis, treatment and education of patients, with particular value for management of chronic diseases.

- Content experts, area physicians and medical students at multiple sites for medical education.

- Providers and community organizations to support regional wellness initiatives such as weight and asthma control through multiple rural school districts.

RTN will operate with governance provided by representatives from its founding organization(s), and selected members of the regional business and medical communities.

This plan assumes a three-year transition from full underwriting to a revenue stream consisting of a) member/user subscriptions, b) income-generating programs (ex., educational program tuition) and c) grant/philanthropic funding. Over 250,000 residents of NW Pennsylvania live in rural areas with significantly less access to health care services than their urban counterparts. These areas have a large percentage of elderly and early retirees, lack adequate public transportation and are further isolated seasonal inclement weather and uncertain road conditions. A recent study by the *Center for Rural PA* revealed that while 95% of rural residents have healthcare insurance, only 12% stated they have access to quality care.

Lack of healthcare access is directly related to the shrinking number of physicians in rural communities, not the absence healthcare insurance coverage. Excluding Erie County, less than 6% of PA State physicians are located in NW PA covering 25% of State land mass.
Increasing retirement rates among all healthcare professions over the next 5 years will accentuate the access crisis. Several PA rural health studies have already indicated 2010 as the critical point.

Mission

The Regional Telehealth Network exists to enable efficient communication and collaboration between healthcare providers and patients and productive cooperation between various community assets for whom geographic distance is a barrier.

Vision

The Regional Telehealth Network will be recognized by healthcare providers, patients and families and community leaders throughout northwest Pennsylvania as the leader in delivering high-quality, convenient healthcare services and education.

RTN's relationship with Vantage's Health Group Telecommunications (HGT) can serve to facilitate the network's development and expansion through HGT's existing telecommunications expertise and relationships.

1. Legal and Financial Responsibility

Each member of Northeast HealthNet is legally and financially responsible for any funded telecommunications, advanced telecommunications and information service terminated at their locations. The sites included in this proposal are outlined in item 6.

2. Goals and Objectives

Research has confirmed that the FCC's Rural Heath Care program, funded through the Universal Service Fund, is significantly underutilized by rural health care providers. The goals of the Pilot Program and the objectives of our application are to provide funding to support the construction of regional broadband networks and information services associated with those networks.

There are a number of factors that may explain the underutilization of this important fund. As stated in the Pilot Program Order, there continues to be a lack of broadband access facilities. However we do not believe that the primary reason for underutilization of funds is the lack of broadband access in rural America.

Private telecommunications services are available in virtually every jurisdiction in the United States. Observations over the past 8+ years have rarely shown

infrastructure facility problems interfering with implementation of a service such as a T1 in rural America. We recognize that there will be a need to upgrade infrastructure to increase bandwidth beyond T1 speeds. However, rural America has yet to catch up with the IT technical skills needed to support medical services that may rely on these higher speeds.

This fact supports the relevance and importance of our proposal. It is our goal to deploy a network using today's technology that will use the existing infrastructure of many telecommunications service providers. With nominal funding, we believe that our proposal can have a significant impact on our ability to provide and support the medical services that need to be deployed today. This accomplishes two objectives. Many rural healthcare providers will quickly be connected to world class information and image management capabilities AND will be poised to take advantage of leading edge technology that otherwise would take years to access. We believe that this aligns exactly with the FCC's pilot program's objectives

It is most likely the FCC's effort to address the underutilization of this fund by implementing a pilot program has significantly increased awareness of the Rural Health Care Support Mechanism. As important as it is to make the funding process administratively easier for rural health care providers, the heightened awareness and the possible expansion of the list of services available for funding will result in a significant increase of fund utilization.

Initially, our application will create a regional broadband network in the states of Pennsylvania and New York

Because of the significant number of members included in the Northeast HealthNet, we believe that this proposal provides excellent value to the funding mechanism. There is significant participation by rural health care providers that will aggregate their specific service needs while leveraging existing technology to adopt the most efficient, effective and cost-conserving means.

Healthcare providers in the states of Pennsylvania and New York have historically underutilized the Rural Health Care Support Mechanism. *In FY2005 a total of 24 healthcare providers from Pennsylvania and 63 from New York filed 465 forms. Most importantly, of those 87 healthcare providers only 11 in PA and 15 in NY have been funded.*

While this proposal may be a more conservative approach to fund utilization, we believe that the true measure of the Rural Health Care Support Mechanism's success will be the level of participation and not the amount funded. Plus, this participation must quickly provide world-class medical management tools in order to make the health care providers more effective. We have a large number of public and non-profit healthcare providers participating in this proposal with a significant representation from rural Pennsylvania and New York. The value that we outline in this proposal is most definitely in the public's interest.

The Northeast HealthNet USAC – Rural Health Care Support Mechanism History

If this proposal is accepted, it would be the first time any of the rural members of this consortium would receive FCC funding. This consortium represents a significant increase in funding requests from the state of Pennsylvania and New York.

Consortium:
 39 members
 35 Elilgible rural healthcare providers
  4 Urban public and for-profit healthcare providers

We are requesting support under the Pilot Program for several reasons. First, individually we do not have the financial resources and personnel to provide the FCC with this business proposal on our own. We have chosen to combine our resources in an effort to not only take advantage of this funding for telecommunications services, advanced telecommunications services and information services under the Pilot Program, but also for the benefit of group purchasing of information services such as inter-active video, picture archival communications systems (PACS), electronic health records, healthcare administrative systems, radiology, psychiatry and many others.

Through our network, we as a group have the opportunity to gain access to services at a lower cost than if we were to purchase them individually. For example; we can deploy an electronic health records system (information service) over this network through an array of providers. Electronic health records companies will spread the cost among the consortium members. We believe that this aligns our goals with the President's EHR initiative.

The regional network we propose includes services provided by rural incumbent local exchange carriers, long distance carriers, competitive local exchange carriers, regional carriers and others in the industry. The service provider participants are:

Verizon
Windstream
Core
Erie Telephone
Frontier
Paetec
Teleport
TeleQuality Communications

Internet2

This proposal does take into account the opportunity to gain access to Internet2. However, the consensus from consortium members is that there is currently no need for this connectivity. The network design does accommodate future access to Internet2.

Network Design

The network is truly a "Healthcare" network dedicated to healthcare providers and the entities that provide support services. It is a private secure network that meets all HIPAA compliance requirements for transmitting voice, data and video from one participant to another.

Some of the consortium members have minimal Internet or telecommunications services in place today. Many different telecommunications technologies are applied in these networks. VPN technology over the Internet commonly is used because of lower cost. However VPNs do not offer the quality of service necessary to handle the significant bandwidth requirements of many of the applications such as picture archival communications systems, teleradiology, electronic health records, MRI and CTSCAN. VPN technology also places an additional network support burden on the healthcare provider's IT administrator. Other technologies such as frame relay, ATM, MPLS, private lines and others provide the needed quality of service, yet have cost considerations that must be taken into account by the rural healthcare provider.

Our network provides consortium members with an infrastructure that can be used to transmit voice, data and video among one another as well as across a broader private network and the public Internet. The design also provides access to information service providers that can deliver services on one network.

Healthcare Support Service Vendors available on the HealthNet:

Nighthawk Radiology Services
NightHawk Radiology Services is the world's leading provider of radiology services for hospitals, clinics and imaging centers across America. NightHawk is a radiology coverage pioneer, with years of experience in radiology and teradiology, as well as an accreditation by The Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

American Healthnet – EMR
Headquartered in Omaha, NE, American Healthnet has been in operation since 1980 and has been providing enterprise information systems to various community healthcare facilities. More than 200 facilities which include hospitals ranging from 15 to over 200 beds, physician clinics, laboratories and nursing homes in the U. S. have benefited from our software solutions. Our software has provided the ability to efficiently manage the critical information flows and decision processes that assure quality and cost effective patient care.

Deaflink
Deaf Link® utilizes state of the art technology and American Sign Language (ASL) interpreters who are national and state certified for the purpose of providing "clear communication" access for your deaf consumers or employees.

We have developed a time effective and cost efficient solution for effective communication access as required by the Americans with Disabilities Act (ADA) as it relates to the estimated 28 million + deaf and those having hearing disabilities living in the United States. This service is provided to our customers through the internet and is available on a 24/7 basis.

Who Needs Access For The Deaf?

Most businesses, state and local governmental authorities that deal with the public are covered under the American with Disabilities Act of 1990. The ADA covers not only the population that is physically

handicapped but it also covers the population who are deaf or have hearing disabilities.

The [Department of Justice](#) indicates that there are over 5 million facilities/business that fall in the category of "Places of Public Accommodation" (Title III) and are mandated by federal law, the [ADA](#), to be accessible to the deaf and people with hearing disabilities. These entities must provide "auxiliary aids" that provide "effective communication" for people who are deaf or have hearing disabilities.

Community Research Center – EMR
Access to Therapy –
SIP Video
VoIP Long Distance

Most locations on the network will gain access through ethernet connectivity. Information technology expertise is scarce throughout rural America. Ethernet technology provides an ease of management. Most small rural health care locations do not have the resources to support the technology needed to deploy many of the needed medical services. Typical workstation problems translate into a very significant administration problem in rural America. The fact that there are great distances between sites exacerbates an already difficult support issue. By deploying ethernet, health care providers can more easily take advantage of advanced services with minimal telecommunications expertise.

3. Estimated Network Costs

Total Network Costs: 12 Month Overview

Non-recurring Installation Charges:	$78,000.00
Monthly Recurring Charges:	$468,000.00
Infrastructure Buildout:	$NA
Total Network Costs	**$546,000.00**

*Equipment:	
Video Conferencing - Tandberg	$198,040.00
Routers	$48,000.00
TelMed, Second Opinion – 12 locations	$740,400.00

*The consortium is requesting funding for above equipment in this proposal. The pilot program Order is silent on the availability of funds for equipment. The network funding request is not predicated on the funding of equipment.

4. Fair-Share Payments by For-Profit Entities

Currently there are no for-profit healthcare provider members. As for-profit entities are included into the Northeast Healthnet, they will be invoiced separately for each service item. These invoices will be provided directly to the for-profit participant. USAC will receive invoice documentation that reflects eligible rural health care providers only.

5. Source of financial support and anticipated revenues that will pay for costs not covered by the fund:

All participants have some type of access to the Internet or private telecommunications services today. The costs for the rural participants can be quite high for the nominal service they currently receive. The costs for services outlined in this proposal will be replacing those existing services and each participant will provide funding under their general operating budget for the approximately 15 percent of remaining costs.

6. Health Care Facilities Included in the Network;

Rural Telehealth Networks
> **St. Vincent Health Center**
> **Warren General Hospital**
> **Bradford regional Medical Center**
> **Corry Memorial Hospital**
> **Kane Hospital**
> **Union City Hospital**
> **Clarion Hospital**
> **Westfield Memorial Hospital**
> **The Ellwood City Hospital**
> **Titusville Area Hospital**
> **Charles Cole Memorial Hospital**
> **St. Mary's Regional Medical Center**
> **Dubois Regional Medical Center**
> **Millcreek Community Hospital**

Oak Orchard
- **Albion Family Medicine**
- **Albion OB-GYN**
- **Brockport OB-GYN**
- **Mobile Dental Unit – 5+ locations**

Adirondack Medical Center
- **Tupper Lake Health Center**
- **Lake Placid Health Center**
- **Willmington Health Center**
- **Mountain Health Center**
- **New Horizan Continuing Day Treatment**
- **Stepping Stones**

Allegany Rehabilitation Associates
- **Cuba Satellite**
- **Houghton Satellite**

7. Address, zip code, Rural Urban Commuting Area (RUCA) code and phone number for each health care facility participating in the network;

Saint Vincent Regional Imaging Center
52 Davis Street
Bradford, PA 16701
Ph # 814-368-3150
Ruca Code # 4.0

Mobile Dental Unit
181 Bates Road
Albion, NY 14411
Phone: N/A
Ruca Code # 7.3

Warren General Hospital
2-12 Crescent Park West
Warren, PA 16365
Ph # 814-723-3300
Ruca Code # 4.0

Mobile Dental Unit
335 West Oak Orchard Street
Medina, NY 14103
Phone: N/A
Ruca Code # 7.0

Saint Vincent Health Center
232 West 25th Street
Erie. PA 16544
Ph # 814-452-5000
Ruca Code # 1.0

Mobile Dental Unit
1932 Kendall Road
Kendall, NY 14478
Phone: N/A
Ruca Code # 7.0

Bradford Regional Medical Center
118 Interstate Parkway
Bradford, Pa 16701
Ph # 814-368-4143
Ruca Code # 4.0

Corry Memorial Hospital
612 West Smith Street
Corry, PA 16407
Ph # 814-644-4641
Ruca Code # 7.3

Kane Hospital
4372 Route 6
Kane, PA 16735
Ph # 814-226-1248
Ruca Code # 7.0

Union City Hospital
130 North Main Street
Union City, PA 16438
Ph # 7814-438-1000 Ruca Code # 2.0
Clarion Hospital
1 Hospital Drive
Clarion, PA 16241
Ph # 814-2226-1248
Ruca Code # 7.0

Westfield Memorial Hospital
189 East Main Street
Westfield, NY 14787
Ph # 716-326-4921
Ruca Code # 2.0

The Ellwood City Hospital
724 Pershing Street
Ellwood City, PA 16117
Ph # 724-752-0081
Ruca Code # 1.0

Mobile Dental Unit
House Avenue, P.O. Box 540
Lyndonville, NY 14098
Phone: N/A
Ruca Code # 10.4

Mobile Dental Unit
3800 North Main Street
Holley, NY 14470
Phone: N/A
Ruca Code # 2.0

Mobile Dental Unit
5362 MungersMill Road
Silver Springs, NY 14550

 Mobile Dental Unit
324 East Avenue
Albion, NY 14411
Ruca Code # 7.3

WIC/OOCHC
304 East Main Street
Batavia, NY 14020
Ph #| 585-344-2203
Ruca Code # 4.2

Adirondack Medical Center
2233 State Road 86
Saranac Lake, NY 12953
Ph # 518-891-4141 Ruca Code # 7.0

Lake Placid Health Center
29 Church Street
Lake Placid, NY 12946
Ph # 518-523-1717
Ruca Code # 7.0

Titusville Area Hospital
406 West Oak Street
Titusville, PA 16354
Ph # 814-827-1851
Ruca Code # 7.0

Tupper Lake Health Center
55 Church Street
Tupper Lake, NY 12986
Ph # 518-359-7000
Ruca Code # 7.0

Charles Cole Memorial Hospital
US Route 6 East
Cloudersport, PA 16915
Ph # 814-274-9300
Ruca Code # 10.0

Allegany Rehabilitation Associates
Counseling Center
4220 State Rt. 417 W.
Wellsville, NY 14895
Ph # 585-593-6300
Ruca Code # 7.0

St. Mary's Regional Medical Center
763 Johnsonburg
Saint Marys, PA 15857
Ph # 814-834-8550
Ruca Code # 5.0

Cuba Satellite
20 Water Street
Cuba, NY 14727
Ph# 585-593-6300
Ruca Code # 10.5

Dubois Regional Medical Center
100 Hospital Avenue
DuBois, PA 15801
Ph # 814-371-2200
Ruca Code # 4.0

Houghton Satellite
Wesleyan Church
Houghton, NY 14744
Ph# 585-593-6300
Ruca Code # 10.0

Millcreek Community Hospital
5515 Peach Street
Erie, PA 16509
Ph # 814-864-4031 Ruca Code # 1.0

Wilmington Health Center
7 Community Center Circle
Wilmington, NY 12997
Ph # 518-946-7080
Ruca Code # 8.0

Oak Orchard
300 West Avenue
Brockport, NY 14420
Ph # 585-637-3905
Ruca Code # 1.0

Mountain Health Center
2841 State Road 73
Keene, NY 12942
Ph # 518-576-9771
Ruca Code # 10.0

Albion Family Medicine
301 West Avenue
Albion, NY 14411
Ph # 585-589-3613
Ruca Code # 7.3

New Horizon Continuing Day Treatmen
4222 Bolivar Rd.
Wellsville, NY 14895

Albion OB-GYN
245 South Main Street
Albion, NY 14411
Ph # 585-589-4519
Ruca Code # 7.3

Brockport OB-GYN
156 West Avenue
Brockport, NY 14420
Ph # 585-637-6040
Ruca Code # 1.0

Meadville Medical Center
751 Liberty Street
Meadville, PA 16335
Ph # 814-333-5500
Ruca Code # 4.0

Ph # 585-593-1655
Ruca Code # 7.0

Stepping Stones
43 Duncan Street
Warsaw, NY 14569
Ph # 585-786-8788
Ruca Code # 7.0

8. Previous Experience in Developing and Managing Telemedicine Programs

This project has been initiated by by Rural Health Telecom, which has been providing rural health care providers telecom services under the USAC – RHC program since 1999. Rural Health Telecom has developed strong relationships with many telecommunications providers and health care providers.

Currently none of the members of Northeast HealthNet are managing significant private telemedicine networks. However, the benefit of our approach is that the management of the network is provided by the telecommunications carriers. Each service type, voice, data and video will be available to the healthcare provider much in the same way that you would access the public internet. Each healthcare provider is responsible for their connectivity to the HealthNet and the underlying network is supported by the carriers.

9. Project Management Plan

Leadership

Rural Health Telecom is providing the leadership to bring together many disparate organizations to support this consortium effort.

Management Structure and Work Plan
Project management is handled by each representative location. Much like connectivity to the public Internet, the members will manage the connectivity and required negotiations needed to communicate with other members of the consortium.

Schedule
Upon approval of this proposal, each representative will submit a form 465. Upon selection of the telecommunications carrier, orders will be submitted for the specific services outlined in this proposal. It is expected that the installation of service will take 30 – 90 days.

Form 466 funding requests will be submitted at the same time as orders are processed with the telecommunications carrier.

10. Program Coordination

There are no network coordination requirements. The Northeast HealthNet is a private network that will operate much like the public internet. Each member is responsible for all network coordination with the telecommunications carrier.

11. Indicate to what extent the network can be self-sustaining once established.

After the completion of this pilot program, all ongoing monthly costs outlined in this proposal are eligible for funding under the current rules of the USAC – RHCD program for all rural healthcare participants. Net costs for services to the rural health provider will be the comparable urban rates.

This network is to be self-sustained by:
- USAC – Rural Health Care Funding Mechanism (current rules)
- Additional revenue generation
    - Radiology services
- Replacement of current Internet costs will be applied
- Cost reduction in general telecom costs
    - VoIP Long Distance

Video connectivity
IT Support

ORGANIZATION DESCRIPTIONS

Saint Vincent Health Center (SVHC)

Saint Vincent Health Center, ranked one of Pennsylvania's Best Places to Work, is a 469-bed not-for-profit tertiary care facility located in Erie, PA. Saint Vincent is also the northwestern Pennsylvania region's second largest employer with 2,700 employees. Saint Vincent was founded in 1875 by the Sisters of Saint Joseph of Northwestern Pennsylvania as the area's first hospital and now stands as an integrated health care delivery network which includes 14 distinct on-campus centers of excellence, 12 primary care medical practices, 11 specialty medical practices, strategic affiliations with seven community hospitals and thousands of area physicians and medical providers, serving a population base of 1.2 million.

Saint Vincent is the region's leading heart center performing more heart procedures annually, with better outcomes, than any other hospital in NW PA. The heart center staff is comprised of 100 percent board certified cardiologists and cardiovascular surgeons. The area's only board certified electrophysiologist is on staff at Saint Vincent and provides cardio-electrophysiology service in a state-of-the-art lab.

The Saint Vincent Heart Center is one of only 10 sites in the country using "tissue" valves. Saint Vincent surgeons prefer to repair patients' valves versus replacing them, because of the significant patient benefits. Nationally only 64% of mitral valves are repaired. At Saint Vincent, their highly skilled and experienced cardiac surgeons are able to repair 82%.

The surgeons at Saint Vincent perform twice as many heart procedures as other surgeons in the region, making a successful recovery significantly more likely. According to the most recent PHC4 report, patients treated by surgeons who performed 200-250 open-heart surgeries per year were twice as likely to survive after bypass surgery as patients of surgeons who do fewer than 100 procedures per year. Dr. Fred Holland performed 272 open-heart procedures during the latest PHC4 annual reporting period, more than twice that of any other surgeon reported.

The Saint Vincent Neurosciences Center is home of the region's highest level of specialty care for patients with brain and spine disorders, run by a team of

neurosurgeons, neurologists, physiatrists and interventional radiologists. Thanks to this team of specialists, Saint Vincent offers neurosciences care usually found only at major academic health centers.

Saint Vincent is committed to working with other regional providers to create partnerships and integrated delivery systems that will improve the health status of residents of each community. Saint Vincent is further dedicated to providing the highest possible quality at the lowest possible cost for all patients in all locations of the partnerships.

Partnerships will be an integral part of the future in NW PA. At Saint Vincent, there is a long history of partnerships and affiliations. Currently, there are 10 joint ventures with nearly 1,000 employees and annual budgets totaling more than $120 million. The descriptions of HGT and Vantage below are excellent examples of Saint Vincent partnerships.

Finally, the Saint Vincent Foundation is the endowment arm of Saint Vincent Health Systems. Funds raised by the Foundation, including grants, are used to support the healthcare ministry of Saint Vincent. Specific initiatives include health system programs and services as well as collaborative endeavors in the region that further the system's mission.

The Saint Vincent Foundation is a 501c3, not-for-profit charitable organization. The Foundation acts as the fiduciary agent for all Saint Vincent related gifts and grants and is overseen by an independent board of volunteers representing the NW PA region.

Healthcare Communications Group (HGT)

As an aggregator, HGT is able to save participating health care members significant dollars each year and has improved service response times using volume discounts on hardware, software and carrier services.

Savings from telecommunications services cost, and technology are the main goals of Health Group Telecommunications.

HGT provides the following services to its health care membership including; local telephone services, long distance, Voice over IP, pagers, cell phones, T-1 lines, internet connections, and all other telecommunications and data needs.

Products and Services

    Telecommunications Services

        Local Telephone Service

        Savings Guaranteed

Long Distance Service
> Lowest Possible Price

Cellular Services
> Volume Discounts Available

Paging Service
> Custom Rate Plans

Telephone System Maintenance
> For Data and Telephone Services

Data Communications Services
> Internet Services

Hi-Speed DSL/T-1 Frame Relay

Network and Data Wiring

Data Consulting

HGT, in partnership with Nortel Networks, has recently installed MCS 5100, a new tier of technology into its existing Constellation Model. HGT's Constellation Model currently connects multiple users, facilities and devices simultaneously, and with remarkable efficiency and clarity.

Located in Erie, this system is powered by Internet Protocol Technology and connected by fiber optic cables that replaced yesterday's analog lines. The MCS 5100 allows institutions to communicate and collaborate anytime, anywhere, using a desktop PC, laptop computer, wireless device, or wire line phone providing the flexibility needed to deliver multimedia communications to stationary and mobile professionals.

The HGT System has collaboration capabilities such as instant messaging, white-boarding, and multi-point video conferencing capabilities. IP enables members to take advantage of the full capabilities, regardless of their geographic location. This new system which will be the standard in years to come is now available in limited sites, offering the breadth, flexibility and completeness needed when it comes to end-to-end IP and multimedia solutions.

Vantage® Networks

Vantage is a partnership among non-profit community hospitals. Started in 1984, Vantage's mission is to develop partnership services, formally structured with commitment to share risk and revenue. Hospital shareholders appoint the Board of Directors. Savings, defined as dollars saved from market prices and distributions, comprise the return to owners.

The PA hospital shareholders who appoint the Board of Directors are: Armstrong County Memorial Hospital, Corry Memorial Hospital, DuBois Regional Medical Center, The Ellwood City Hospital, Meadville Medical Center, Millcreek Community Hospital, UPMC Northwest, Franklin/Oil City/Seneca, Saint Vincent Health System, Titusville Area Hospital, UPMC Horizon, Greenville and Farrell, and Warren General Hospital.

Hospitals can develop a systematic process that allows a better use of scarce resources by partnering. The Vantage® sense of partnering is a formal commitment and an investment. A return on this investment is expected. Dues contributions are not required. This provides an owner hospital with the opportunity to create its future alongside the best hospitals in the region as partners.

Vantage® Owners

[Armstrong County Memorial Hospital](#)
Kittanning (ACMH)

[Corry Memorial Hospital](#)
Corry (CMH)

[DuBois Regional Medical Center](#)
DuBois (DRMC)

[Meadville Medical Center](#)
Meadville (MMC)

[Millcreek Community Hospital](#)
Erie (MCH)

[Saint Vincent Health System](#)
Erie (SVHS)

[Elk Regional Health System](#)
St. Marys

The Ellwood City Hospital
Ellwood City (TECH)

[Titusville Area Hospital](#)

Titusville (TAH)

UPMC Horizon
Greenville/Farrell

UPMC Northwest
Franklin/Oil City/Seneca
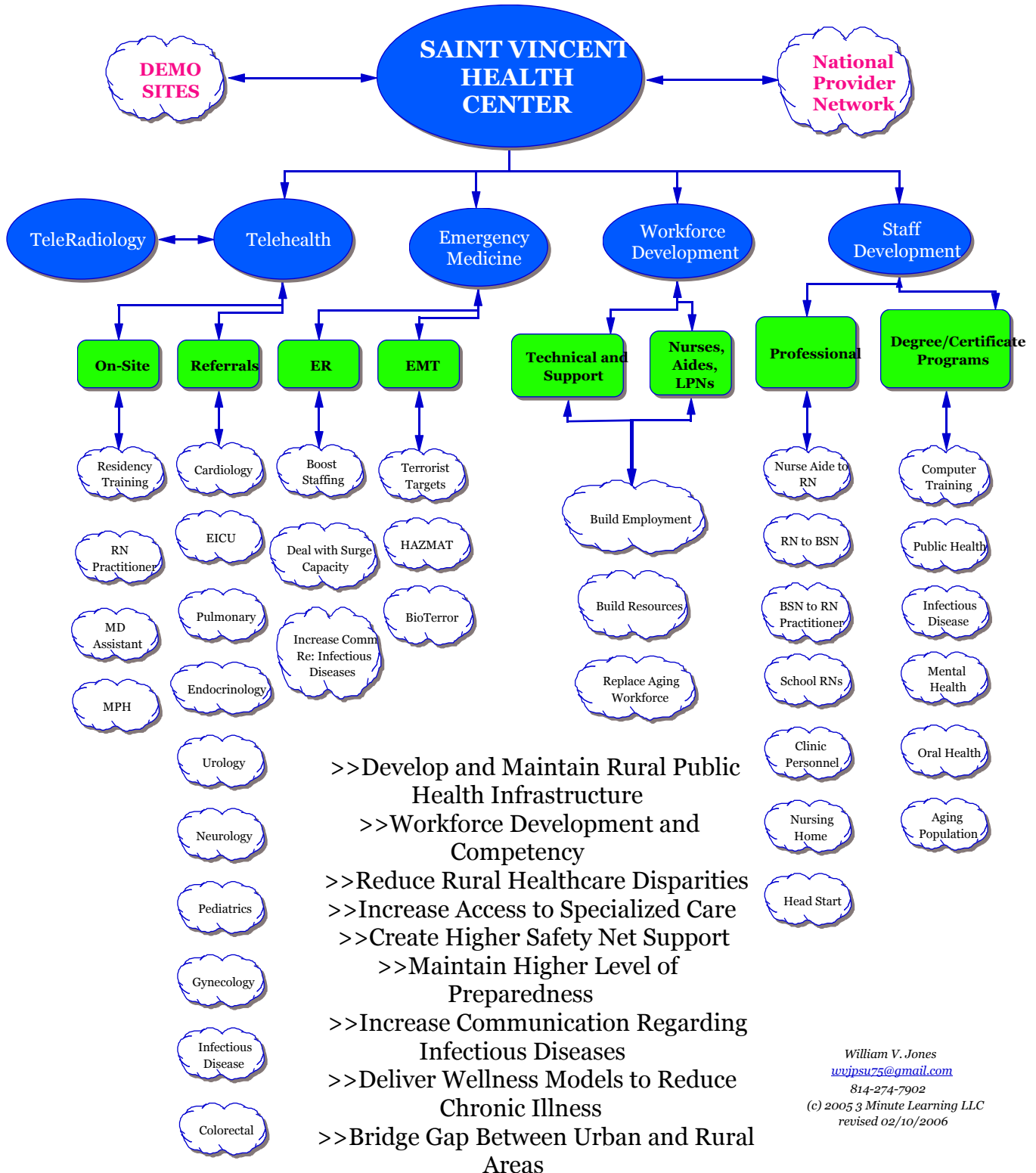
Warren General Hospital
Warren (WGH)

Kane Community Hospital
Kane (KCH)

PROJECTED 5 YEAR OUTCOMES: SAINT VINCENT HEALTH CENTER TELEHEALTH PROJECT

DEMO SITES ← → **SAINT VINCENT HEALTH CENTER** ← → **National Provider Network**

- **TeleRadiology** ← → **Telehealth**
- **Emergency Medicine**
- **Workforce Development**
- **Staff Development**

Telehealth:
- **On-Site**
  - Residency Training
  - RN Practitioner
  - MD Assistant
  - MPH
- **Referrals**
  - Cardiology
  - EICU
  - Pulmonary
  - Endocrinology
  - Urology
  - Neurology
  - Pediatrics
  - Gynecology
  - Infectious Disease
  - Colorectal

Emergency Medicine:
- **ER**
  - Boost Staffing
  - Deal with Surge Capacity
  - Increase Comm Re: Infectious Diseases
- **EMT**
  - Terrorist Targets
  - HAZMAT
  - BioTerror

Workforce Development:
- **Technical and Support**
- **Nurses, Aides, LPNs**
  - Build Employment
  - Build Resources
  - Replace Aging Workforce

Staff Development:
- **Professional**
  - Nurse Aide to RN
  - RN to BSN
  - BSN to RN Practitioner
  - School RNs
  - Clinic Personnel
  - Nursing Home
  - Head Start
- **Degree/Certificate Programs**
  - Computer Training
  - Public Health
  - Infectious Disease
  - Mental Health
  - Oral Health
  - Aging Population

>>Develop and Maintain Rural Public Health Infrastructure
>>Workforce Development and Competency
>>Reduce Rural Healthcare Disparities
>>Increase Access to Specialized Care
>>Create Higher Safety Net Support
>>Maintain Higher Level of Preparedness
>>Increase Communication Regarding Infectious Diseases
>>Deliver Wellness Models to Reduce Chronic Illness
>>Bridge Gap Between Urban and Rural Areas

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Pennsylvania's Rural Counties

Source: United States Census Bureau, Census 2000

Urban   Rural

Projected sites for Telehealth network (location approximate; would coincide with hospital location.

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